

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte  
JEROME MELVIN KLOSOWSKI,  
CHARLES WAYNE SMITH  
and DONNY LEON HAMILTON

**MAILED**

**JUL 22 2003**

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 2002-0223  
Application No. 09/410,162

**ON BRIEF**

Before KIMLIN, OWENS and LIEBERMAN, Administrative Patent Judges.

LIEBERMAN, Administrative Patent Judge.

**DECISION ON APPEAL**

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner refusing to allow claims 51, 54 and 55. Claims 52, 53 and 56 through 71 stand withdrawn from consideration pursuant to a requirement for restriction. These are all the

claims pending in this application.

### **THE INVENTION**

The invention is directed to a method of preserving a material by impregnating the material with at least one hydrolyzable silane and curing the product obtained therefrom.

Additional limitations are described in the following illustrative claims.

### **THE CLAIMS**

Claims 51, 54 and 55 are illustrative of appellants' invention and are reproduced below.

51. A method of preserving organic and inorganic materials, the method comprising:

(I) Impregnating a material selected from

- a. organic materials or
- b. inorganic materials

with a hydrolyzable silane or a mixture of hydrolyzable silanes and thereafter, curing the product of (I).

54. A method as claimed in claim 51 wherein the hydrolyzable silane is an acetoxysilane.

55. A method as claimed in claim 54 wherein the acetoxysilane is methyltriacetoxysilane.

### THE REFERENCES OF RECORD

As evidence of obviousness, the examiner relies upon the following references:

Pinchuk                                      5,736,251                                      Apr. 7, 1998

Leidheiser, H. et al., (Leidheiser) Corrosion Behavior of Steel Pre-treated with Silanes,  
Corrosion, (June 1987 43(6) pp. 382-387.

### THE REJECTIONS

Claims 51, 54 and 55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pinchuk.

Claim 51, 54 and 55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leidheiser.

### OPINION

We have carefully considered all of the arguments advanced by the appellants and the examiner and agree with the examiner that the rejection of the claims under § 103(a) over Pinchuk is well founded. Accordingly, we affirm the rejection for the reasons discussed herein. We will not however sustain the rejection over Leidheiser.

As an initial matter, it is the appellants' position that, "[t]he claims may be grouped together for the purposes of this appeal." See Brief, page 2. Accordingly, we select claim 51 as representative of the claimed subject matter and substantially limit our consideration thereto. See 37 CFR § 1.192(c)(7) (2000).

The Rejection under § 103(a)

It is the appellants' position that, "[n]owhere in the disclosure of the '251 patent do the patentees suggest or contemplate impregnating the articles of their invention." See Brief, page 3. We disagree.

Pinchuk is directed to a highly crosslinked silane treatment for reducing the coefficient of friction of a surface. See column 1, lines 10-16 and column 2, lines 43-47. The surface being treated is located on a shaped elastomeric article. See column 3, lines 56-67. We find that the silanes may be applied to the surface by any suitable application means. See column 3, lines 18-23. We find that the silanes are crosslinkable and the invention includes the presence of a crosslinking agent. See column 4, lines 16-33 and 66-67. We further find that the silanes form a crosslinked silicone surface modification as well as, "a crosslinked interpenetrating network within the substrate." See column 5, lines 1-8. Significantly, we find that Example 7 is directed to a urethral valve catheter equipped with a silicon balloon and vapor phase treated with methyl triacetoxysilane which is the preferred silane of claim 55. The balloon portion was cured at 150° C. Pinchuk states that, "[w]hen the balloon portion was cut open, micro nodules of silane surface treatment were observed on the interior surface of the balloon which was not directly contacted with the silane vapors. From this observation, it was concluded that the silane treatment of the invention penetrated the bulk of the balloon catheter substrate and was not only a surface coating." See Example 7, column 11, lines 8-21. Emphasis ours.

Impregnate is defined as "2 a : to cause to be filled, imbued, mixed, furnished, saturated (as with particles of another substance). . . . b (1) to mix with :

INTERPENETRATE.”<sup>1</sup>

Inasmuch as the silane treatment penetrated throughout the elastomer and mixed with the elastomer, we conclude that the elastomeric material was “impregnated” as required by the claimed subject matter. We further conclude that, inasmuch as the silane utilized by Pinchuk in Example 7 is the preferred silane of claim 55, the organic material would be inherently “preserved” as required by the claimed subject matter. Stated otherwise, “preserving” the material would be an inherent property inasmuch as the method and material utilized are the same.

Based upon the above findings and analysis, we conclude that the examiner has established a prima facie case of obviousness with respect to the claimed subject matter, this being the sole issue before us for consideration with respect to the rejection over Pinchuk.

As for the second rejection, Leidheiser teaches the protection of an inorganic material, i.e., steel, with polymerized methyl triacetoxysilane. See Answer, page 4. There is no suggestion or teaching however, in Leidheiser that the polymerized triacetoxysilane impregnates the steel as required by the claimed subject matter. In support of her position, the examiner cites *In re Marra* 329 F.2d 970, 972, 141 USPQ 221, 223 (CCPA 1964) stating that, “the art does not recognize any distinction between coating and impregnating.” *Id.*

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<sup>1</sup> Webster's Third New International Dictionary, p. 1136 (G. & C. Merriam Co., 1971). Copy attached.

The pertinent portion of the decision reads as follows;

We have difficulty accepting the distinction urged by appellants that 'coating' differs from 'impregnating' in this case. It would appear that a porous material like paper would be impregnated to some extent by an aqueous composition applied by 'various coating techniques' as Keim et al. suggests, whether the composition is called 'coating' or 'impregnating.' It seems doubtful that a clearly defined interface between the coating and the paper would result.

On the facts before us in this case, we have difficulty in accepting coating and impregnation of steel as being art recognized equivalents, steel being a non-porous material. We conclude that a non-porous material, such as steel, would be coated but not impregnated, by applying methyl triacetoxysilane. Any reaction with the steel would at most be limited to a surface reaction between the silane and the substrate in the absence of impregnation. Accordingly, the rejection of the claims over Leidheiser is not sustainable.

### **DECISION**

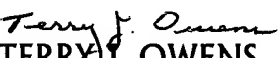
The rejection of claims 51, 54 and 55 is affirmed.

The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

  
EDWARD C. KIMLIN  
Administrative Patent Judge

  
TERRY J. OWENS  
Administrative Patent Judge

  
PAUL LIEBERMAN  
Administrative Patent Judge

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**impresario**

**im-preg-na-tion** *im.preg.nāshən* *n* -s [F or L; F *Impregnation*, fr. MF *impregnation*, fr. ML *impregnatio*, *impratio*, fr. LL *impraegnatus* + L *-lon-*, *-lo-ion*] 1: the act of impregnating or the state of being impregnated: as causing to conceive; FERTUNDATION, FERTILIZATION b FUSION, SATURATION c: INDOCTRINATION 2: something impregnated: a mineral containing organic matter

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